

STATE OF SOUTH DAKOTA CLASS SPECIFICATION

Class Title: Statistician

Class Code: 10832

A. Purpose:

Monitors accuracy, completeness, and significance of statistics by applying established statistical methodologies to analyze, edit, and correct data; develops computer databases and programs to accumulate and manipulate data; and prepares and distributes reports using established formats to provide credible information to managers, other agencies, and the public.

B. Distinguishing Feature:

Statisticians analyze and edit accumulated data by applying established statistical methods to identify problems or trends in reported statistics.

Senior Statisticians function as a lead worker, provide technical expertise and work direction to other staff, and perform quality control audits of others' projects.

Statistical Assistants complete assigned surveys; establish computer databases; and charts, graphs, and other reports as assigned, choosing from established procedures.

C. Functions:

(These are examples only; any one position may not include all of the listed examples nor do the listed examples include all functions which may be found in positions of this class.)

1. Compiles, analyzes, and edits statistical data to ensure data represents survey requirements.
 - a. Monitors coding and classification of data elements, checks for duplication and missing information.
 - b. Completes assigned phases of statistical surveys and research studies.
 - c. Applies mathematical and statistical methods to derive age-adjusted rates, averages, percentages, means, ratios, correlation's, and other measures.
 - d. Interviews data requesters to determine needs.
 - e. Develops data-gathering forms following established formats.
 - i. Interviews data requesters and survey participants.
 - ii. Identifies data elements and recommends instructions for completing forms.
2. Develops computer databases and spreadsheets to perform data analyses.
 - a. Writes computer programs and subsequent documentation.
 - b. Modifies existing computer programs to retrieve data for ad hoc reports.
 - c. Provides direction to other staff in the use of databases.
 - d. Develops and maintains computer database user manuals.
3. Generates statistical reports using established formats to disseminate information to requesters.
 - a. Prepares and distributes statistical information in narrative, graphic, and tabular form.
 - b. Creates ad hoc reports for the public, other agencies, and managers.
4. Provides program support to assist management.
 - a. Recommends standard operating procedures.

b. Trains staff and reporting sources in completing questionnaires and forms.

5. Performs other work as assigned.

D. Reporting Relationships:

The Statistician reports to a Statistical Program Manager or Senior Statistician. The incumbent does not supervise, but may provide work direction to statistical support staff.

E. Challenges:

Challenged to monitor the accuracy of data and consistency in coding. This is difficult because the incumbent must choose the most effective method to evaluate the data, check large volumes of records with multiple data elements, and determine codes that are technical and often misinterpreted. The incumbent is also challenged to interview data requesters, determine and understand their needs, and choose the most effective research methods to acquire data.

Problems encountered by the Statistician include uncooperative reporting sources, missing or inconsistent data, and locating data sources.

F. Decision-making Authority:

Decides which tests and methods are necessary to evaluate a project, the best source of necessary data, which computer software to use, how to correct inconsistent or incorrect data, and format for data reports.

Decisions referred to higher authority include the topic of data to be collected, data-collection methods, extent of data to collect, solutions for unusual data-collecting and reporting problems, if and when data should be released, and final approval of data-collection instruments and reports.

G. Contact with Others:

Daily contact with staff, the public, and other agencies to exchange data and information; and frequent contact with researchers to explain data and data-collecting methods and obtain information; and the Census Bureau to exchange information.

H. Working Conditions:

Works in a typical office environment.

I. Knowledge, Skills and Abilities:

Knowledge of:

- statistical sampling principles and procedures;
- standard mathematical and statistical evaluation methods and techniques;
- research design methods and procedures.

Ability to:

- analyze data and determine its validity to survey requirements;
- read and comprehend technical narrative material including manuals, handbooks, and instructional memoranda for application to daily work;

- organize and express information and data in concise written form;
- identify trends and apply analytical thinking;
- communicate information clearly and concisely;
- use a computer and statistical and database software to prepare reports and analyze data.